OSGeo 101 Documentation

Release 0.1

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CHAPTER 1

OSGeo introduction

Open source geospatial foundation - OSGeo is a not-for-profit software foundation. OSGeo has US 501(c)(4) legal status as a not-for-profit organization.

OSGeo Vision

Empower everyone with open source geospatial OSGeo

Mission Statement

Foster global adoption of open geospatial technology by being an inclusive software foundation devoted to an open philosophy and participatory community driven development.

OSGeo Goals

- provide resources for foundation projects;
- foster the use of open source geospatial software;
- encourage interoperability with open and community standards;
- ensure interoperability between the foundation projects;
- encourage a high degree of quality and innovation in foundation projects;
- champion the use of open-source and community participation through the development of an open education curriculum
- enable communication and cooperation amongst OSGeo communities;
- champion community building through horizontal (local chapters) engagement and through vertical (sector specific) agreements with like-minded organizations;

- be a welcoming and inclusive worldwide organization at all levels;

- celebrate excellence, openness and service within the OSGeo community.

Provides support for projects:

- financial

- organizational

- legal

Outreach and advocaty

- Promoting global adoption of open source geospatial technology

- Partnerships on open approach to standards, data and education.

OSGeo is a volunteer driven organisation

- Passionate membership of individuals from around the world.

- If you will not do it, nobody else will (this is the case of this workshop).

1.1 Open geospatial

Open Source collaborative approach to software development.

Open Data freely available information to use as you wish

Open Standards avoid lock-in with interoperable software

Open Education Removing the barriers to learning and teaching

Open Science Share data and software for responsible research

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Open community We work on it, we build it, we invite everybody to join and help.

1.2 Not-for-profit organisation

- We are registered in the US as *not-for-profit* organisation (IRS code 503(c)4

- All the work done, is done by our *members*.

- Members can benefit from our work.

- Strong *public service* focus

- We can not donate money to our projects directly, we can rather provide services to them, we can sponsor community events (sprints, conferences, . . .).

1.3 Volunteers

OSGeo is a volunteer driven organisation

- Passionate membership of individuals from around the world.

- If you will not do it, nobody else will (this is the case of this workshop).

• It's sometimes hard to find volunteer to do the job

https://wiki.osgeo.org/wiki/Volunteers_Needed

Organisation

Everything is based on OSGeo Bylaws

2.1 Membership

For details, referrer Membership rules

OSGeo distinguishes 3 different membership levels:

Participant, Member, and Charter Member.

2.1.1 Participants

- Anybody can be just participant

2.1.2 Members

- Still self-declared
- on the Wiki
- no voting rights (just general polls)
- opt-in

2.1.3 Charter members

- must be voted into this category by the other Charter Members
- have the right to vote in elections for other Charter Members, and for Board Members.
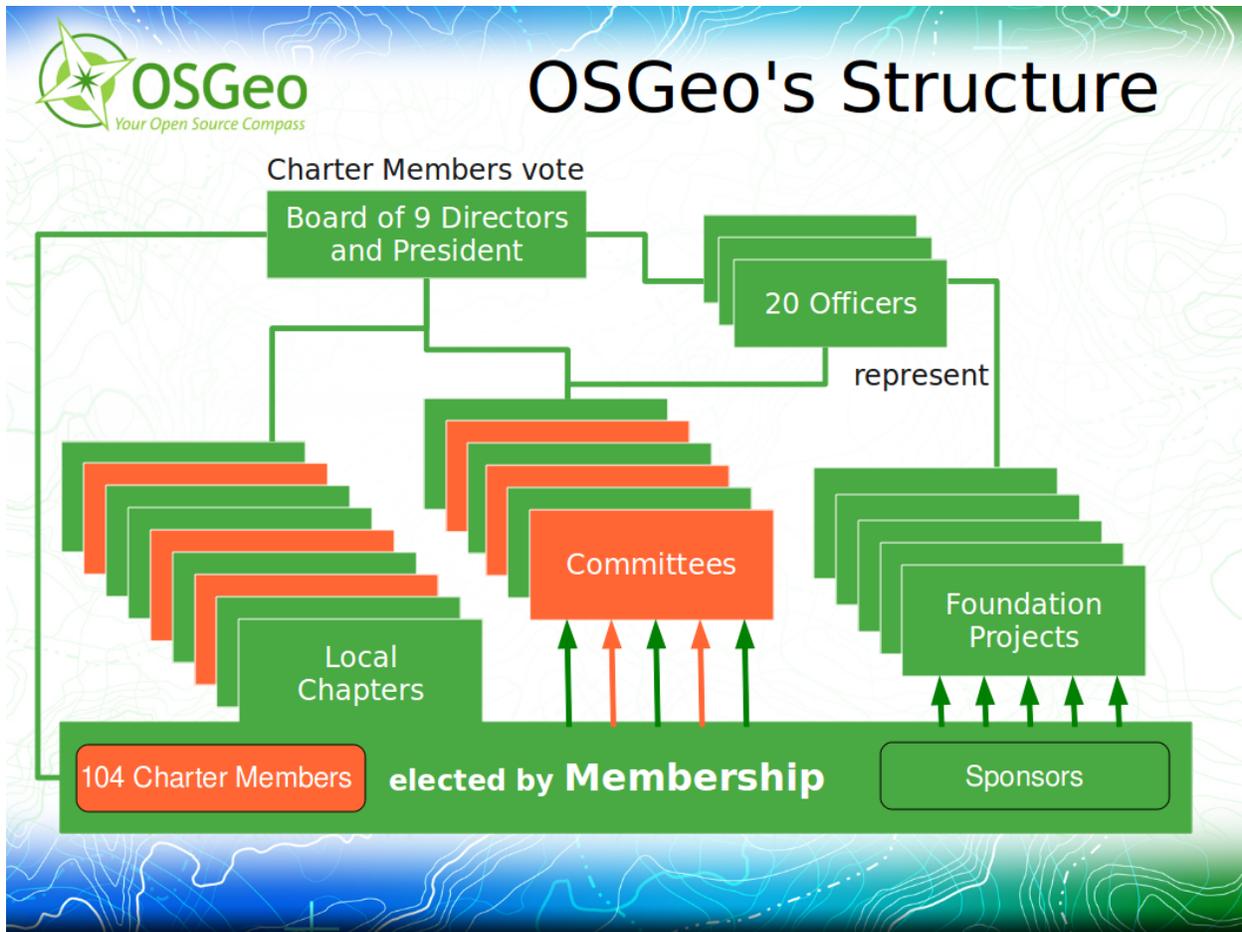- can be elected as Board Member

Fig. 1: OSGeo structure according to Arnulf Christl

2.2 Being a member

As a Member of the Foundation, you are expected to act in accordance with the goals of the Foundation. You are expected to act in a professional and responsible manner. You are expected to treat your fellow members with respect and courtesy. Foundation activities are to be undertaken in a spirit of open discussion and consensus.

2.3 Membership howtos

2.3.1 Howto become a Member

It's described in the Wiki

1. Request OSGeo Wiki Account if you do not have already.
2. Go to Create or edit membership page
3. Enter your user page, e.g. user:jachym
4. Fill the details in the form
5. Save and done - you will appear in the user map as well as in the list of members.

From now on, you are recognized as official OSGeo Member.

OSGeo currently has 1219 members (summer 2019)

2.3.2 Howto become Charter Member

You can become Charter Member by

1. You have to be nominated by other Charter Member
2. You are then confirmed by the annual Charter Member election (usually before FOSS4G) See https://wiki.osgeo.org/wiki/Category:Elections

(0. Pick Charter Member(s) you want be nominated by and invite them for a beer)

(Refer to the membership process Wiki page).

A Charter Member can be

- person, who have already made a contribution to open source geospatial software, data or education.
- should be willing to put in time and effort on Foundation activities
- should believe in the general goals of the Foundation
- should be prepared to works constructively and positively towards the goals of the Foundation. Good teamwork skills are an asset.

OSGeo currently has 427 Charter Members (summer 2019).

Fig. 2: Members increased within the thirteen elections – animated Image by Jorge Sans

2.4 Board and Officers

2.4.1 Board of directors

OSGeo executive body is call the Board of Directors.

The Board has 9 members, they are elected every 2 years, always half of it.

Members of the Board are spread around the world

As for now (summer 2019), the members of the Board are

- Helena Mitasova (Raleigh, North Carolina, USA)
- Jeff McKenna (Lunenburg, Canada)
- Jody Garnett (Victoria, Canada)
- Tom Kralidis (Toronto, Canada)
- Astrid Emde (Cologne, Germany)
- Angelos Tzotsos (Athens, Greece)
- Michael Smith (Hanover, USA)
- María Arias de Reyna (Sevilla, Spain)
- Victoria Rautenbach (Pretoria, South Africa)

Fig. 3: Curent members of the Board

Board organisation

The main resource is the Wiki.

For all the motions, the Board uses the Loomio service. Generally the voting period of time is one week.

For actions and issues, the Board uses custom Issue tracker.

For the Board meeting, traditionally we use IRC. The meeting takes place regularly *last Monday of the month from 16.00 UTC.*

There are also occasional face-to-face meetings, usually organised during conferences (there is one at this FOSS4G as well).

You can always join the Board meeting. You can always check the voting results. You can usually participate at the Board's meeting actively (although hight level of discipline is needed, since the meeting is having it's agenda, people are spread around the world in different time zones).

And of course, there is the Board mailing list

Howto become Board Member

Todo: This chapter belongs to organisation/management

Step 1. Become Member

Step 2. Become Charter Member

Step 3. Be active, communicative, productive, nice to others . . .

1. Accept nomination from other Charter member(s)

2. Be elected

3. Enjoy

Beeing the Board Member

https://wiki.osgeo.org/wiki/Director_Responsibilities

Focus The board's primary responsibility is to efficiently and effectively make strategic decisions related to the running of OSGeo.

Payment (lack of) Directors are not paid for their service (bylaws section 3.4), but director should not be out of pocket when working for the board.

Time Commitment Directors should expect to spend 4 to 12 hours per month of their spare time on board activities.

Monthly meetings Directors should attempt to attend all board meetings, which happen once per month, for ~ 1 to 1.5 hours.

Face to face meetings OSGeo Directors often attend conferences such as FOSS4G as part of their professional or personal interest, and these offer an opportunity for board members to meet face-to-face.

Email list Directors should monitor and contribute toward discussions on the board email list, and aim to vote on motions within 2 working days. There are typically a dozen email topics, absorbing ~ 2 hours reading/writing per month.

Advocacy Directors should be prepared to represent OSGeo locally, possibly internationally, typically by presenting or working an OSGeo booth at conferences, in line with our OSGeo Advocate program.

Board officers

- President: María Arias de Reyna
- Vice-President: Helena Mitasova
- Vice-President: Angelos Tzotsos
- Vice-President: Jeff McKenna
- Treasurer: Michael Smith
- Secretary: Astrid Emde

2.5 Local Chapters

Local Chapters are the place you can connect with other OSGeo members in your country, region or language.

There are over 60 local chapters registered in the wiki

2.5.1 Howto start local chapter

0. Review Local Chapter Guidelines to make sure you understand what a Local Chapter does and should look like.

1. Start a wiki page for this local chapter. Link it from the local chapters page: http://wiki.osgeo.org/wiki/Local_Chapters

2. Join the OSGeo main Discuss mailing list and introduce the idea there.

3. Once you get a critical mass of people or need a better forum for regional discussion, we should create a mailing list for you.

4. Official OSGeo Local Chapter is recognized by the Board

Does Local Chapter be official legal entity? No! Just group of people around mailing list and wiki will do. Timew will show, whether forming legal body will help for your local activities.

2.6 The tools we use

Remember: OSGeo started in 2006 and since then, most of the technical tools remain the same. Some of them were pretty modern back in the days (like Wiki), some up-to-date (e-mail), some were considered old-time even in those days (IRC), but we did not find anything better.

2.6.1 OSGeo UserID

Get your UserID, you may use it for various services within OSGeo.

2.6.2 Mailing lists: For daily communication

Fig. 4: OSGeo uses GNU Mailman for empowering the lists infrastructure.

Mailing lists are the heard and soul of OSGeo community communication. 99% of what is happening in the community, all the organisation happens in asynchronous mode via mailing list.

What is an mailing list? An electronic mailing list or email list is a special use of email that allows for widespread distribution of information to many Internet users. It is similar to a traditional mailing list - a list of names and addresses - as might be kept by an org anization for sending publications to its members or customers, but typically refers to four things:

- a list of email addresses,

- the people ("subscribers") receiving mail at those addresses, thus defining a community gathered around a topic of interest.

- the publications (email messages) sent to those addresses, and

- a reflector, which is a single email address that, when designated as the recipient of a message, will send a copy of that message to all of the subscribers.

In short: you send e-mail to one address and it will arrive into mailbox of another thousands of people, who subscribed for it.

Where are relevant mailing list of OSGeo? What the one interesting for me?

You go ti https://lists.osgeo.org and see the list. There are at the moment (summer 2019) 296 (!) mailing lists. You have to choose one by name and description.

Generally speaking, there are several types of e-mail lists within OSGeo:

- Organisational and about OSGeo itself

- Local chapter mailing lists

- Projects mailing list.

Which mailing lists is worth to follow? This depends on your focus and interest. It's always good to watch your project user list (e.g. https://lists.osgeo.org/mailman/listinfo/qgis-user). If you are interested in OSGeo itself, you may follow one or two OSGeo lists.

Some of the OSGeo mailing lists and their purpose

OSGeo-Discuss This is, where most of the day-to-day communication within OSGeo takes place. If you are looking for some hint or need to talk to most of the people within OSGeo, this is the place to go.

Archive Expect traffic about n*10^1 emails per week.

OSGeo-Board This is the place, where all the communication within the Board's topics is taking place. If you want to watch Board in action, go there.

FOSS4G Conference-dev Everything new about conference organisation. Each FOSS4G has it's own mailing lists (e.g. FOSS4G 2019)

How to subscribe to mailing list

1. Pick the topic you would like to join (e.g. OSGeo-Discuss),

2. Fill the details in the registration form

3. Confirm link in the confirmation e-mail

4. Set filters in your mail box!

5. Consider fine-tuning your "out-of-office" automatic response

May I greet everybody, once I'm in? No. Write only, if you have something real to say. It's ok to introduce yourself if you did not do it so far, but stick to the topic and try to keep to traffic as low as possible.

How to send e-mail to mailing list

Once you are registered, you can write e-mail to specific address, e.g. discuss@lists.osgeo.org - it will be received by everybody else.

How to unregister

In the same form, you registered

2.6.3 The Wiki: Archive and documentation

https://wiki.osgeo.org

Fig. 5: OSGeo uses MediaWiki

Wiki is the archive and way how to create documents collaboratively. There is track of all the documents, users, day-to-day records for the committees and ad-hoc teams.

Of course, it's a Wiki, that means, that there is a lot of informations, some of them up-to-date, some of them not so up-to date.

Everybody can create new page any time, but search twice and things at least twice, before you start a new page - maybe there is already just existing something similar, which you can pick and start to work at.

2.6.4 IRC: oneline chat

For online chat as well as for committee meetings, we use IRC (Internet Relay Chat) - protocol, which was created in 1988(!). Even it's possible to install IRC server on your own hardware, OSGeo uses service provided by the Freenode server.

All you have to do, is to go to the webchat https://webchat.freenode.net/, pick you nick name and know the chatroom you want to join. There are permanent chatrooms as well as temporary for ad-hoc meetings.

Within OSGeo, several permanent rooms are available, namely

- #osgeo
- #grass
- #qgis
- #gdal
- . . .

You can find more at OSGeo IRC Wiki

Software for IRC protocol

The easiest option is the Web interface. Most of the old-school chat programs, like Pidgin and others do have support for IRC.

2.6.5 Trac: original ticketing system

Trac was one of the first ticketing and source-code managing systems used within OSGeo. It's still used by some projects and also for some of the internal agendas (like the SAC team).

Note: You man need the OSGeo ID for being able to add new tickets to Trac.

2.6.6 Gitea: new ticketing system

New times bring new services, and so GIT arrived to OSGeo. OSGeo Gitea instance is the preferred way, how to keep track of projects. It is also one of the services, OSGeo offers to new projects (if you are unhappy with one of the commercial services for your source code).

Note: You man need the OSGeo ID for being able to add new tickets to Gitea.

OSGeo Projects

The OSGeo Projects are freely available tools and technologies under an open source license, which are recognized by OSGeo as stable and mature, with stable community.

Content Management Systems

- GeoNode

Desktop Applications

- Marble
- gvSIG Desktop
- QGIS Desktop
- GRASS GIS

Geosp atial Libraries

- OSSIM
- GeoTools
- Orfeo ToolBox
- GDAL/OGR
- GEOS

Metadata Catalogs

- GeoNetwork
- pycsw

Other

- OSGeoLive

Spatial Databases

- PostGIS

Web Mapping

- MapServer
- MapGuide Open Source
- mapfish
- deegree
- Geomajas
- OpenLayers
- GeoMoose
- Mapbender
- PyWPS
- GeoServer

3.1 What does it mean, to be OSGeo Project

This means, that an open source geospatial-related project had to go through the incubation process. During this process, community around the project has to make sure (based on the incubation checklist), that the project meets following criteria:

- Openness
- Clear and open Copyright and License
- Described and stable decision and other processes
- Documentation
- Release Procedure
- OSGeo Committees and Community (formed Project steering committee)
- Marketing
- Connection to other projects

Basically it means to clean licenses, formalize processes and form the Steering Committee.

Longest project in incubation: PyWPS - 9 years

Some never incubate.

Is OSGeo providing software certification? Kind of. Making sure, that the community is open and stable.

CHAPTER 4

OSGeo Community projects

Maybe your project is too small. Maybe the community is not big enough. But you still want to affiliate your project to OSGeo.

Then it probably belongs to the community projects

OSGeo Community Projects are software projects that:

- Have an open source license.

- Welcome new contributors.

- Are in the process of building their developer and user communities.

- Are in the process of working on project governance, documentation, and marketing.

One day, your project may approach the full incubation.

- Geoinformatica

- GeoWebCache

- MapProxy

- pgRouting

- Portable GIS

- Postal Address Geo-Coder

- Proj4php

- Pronto Raster

- Virtual Terrain Project

- Loader

4.1 OSGeoLive

OSGeo-Live is special type of an OSGeo project.

It is a self-contained bootable DVD, USB thumb drive or Virtual Machine based on Lubuntu, that allows you to try a wide variety of open source geospatial software without installing anything. It is composed entirely of free software, allowing it to be freely distributed, duplicated and passed around.

All of the OSGeo projects as well as community projects who were able to prepare sample installation along with required documentation are included at the distribution.

You can have complete GIS desktop and server workstation along with the software, data and documentation. OSGeo-live is always used at the workshops. If you want to try some software, OSGeo-live is always up-to-date, containing the fresh meat.

OSGeo Sponsors

OSGeo relies on the donations from these generous sponsors to fund day-to-day activities and events. You can find out more at https://www.osgeo.org/sponsors/

Without our sponsors, some of OSGeo activities would not be possible.

What is missing

Is that all?

NO!!

- Sol Katz Award
- Geo4All
- FOSS4G
- …

CHAPTER 7

FAQ

Frequently asked questions around OSGeo

Q: How do you make money with open source, when everything is free?

Q: How big is the OSGeo's budget? Just go to the wiki

Q: Does Local chapter be registered as formal body?

Q: …

CHAPTER 8

Resources

8.1 Presentations

Working with the OSGeo Community Jody Garnett (Boundless), 2018

8.2 Web pages

OSGeo main page http://osgeo.org

OSGeo wiki http://wiki.osgeo.org

Important: This workshop should be updated for any event, you plan to use it. We started this for the FOSS4G 2019 Bucharest.

About this workshop

License of this workshop is Creative Commons Attribution-ShareAlike 4.0 International License.

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9.1 Authors

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- [Add yourself]

9.2 Online publication

Online version of this document is available for download from

- https://osgeo-101.readthedocs.io/en/latest/

Source code of the workshop is available at

- https://github.com/GISMentors/osgeo-101

Bug and issue tracker is available at

- https://github.com/GISMentors/osgeo-101/issues

9.2.1 Indices and tables

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